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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,459	06/05/2001	Hannu Paunonen	989.1032	5801

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EXAMINER	
VU, KIEU D	

ART UNIT	PAPER NUMBER
2173	11

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/874,459	PAUNONEN, HANNU
	Examiner	Art Unit
	Kieu D Vu	2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8,10 and 12-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8, 10, 12-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-8, 10, 12-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Restate 35 U.S.C. 112, second paragraph rejection of the previous Office Action:

Claim 1 recites the limitation "the operating environment" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the status" (1st occurrence). There is insufficient antecedent basis for this limitation in the claim.

35 U.S.C. 112, second paragraph rejection applied for amended claims:

Claim 10 recites the limitation "said process graphic diagrams" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Each of dependent claims 13-19 does not specify which independent claim the dependent claim depends on. This renders each of dependent claims 13-19 vague and indefinite.

Since the preamble of each of dependent claims 13-19 claims "The method", in this Final Office Action, it is assumed that each of dependent claims 13-19 depends on independent claim 1 which is a method independent claim.

If each of dependent claims 13-19 is indeed meant to depend on independent claim 1, then objections upon duplicate claims are applied as follows.

Claim Objections

3. Applicant is advised that should claims 3, 4, 5, 6, 7, and 8 be found allowable, claims 13, 14, 15, 16, 17, and 18, respectively, will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5, 7, 10, 12-15, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinzer (USP 6031453) and Takahara et al ("Takahara", USP 5412400).

Regarding claims 1 and 10, Brinzer teaches steps of controlling process in a process control system, in which a terminal (Fig. 1) is provided for displaying symbols illustrating process elements and information about the status of the process (col 1, lines 7-9), being related to process elements in the operating environment of the process (col 1, lines 42-44), the steps comprising providing, on said terminal, a process

graphic diagram for illustrating the process by symbols representing one or more process elements and information about the status of the process (col 2, lines 13-17; col 3, lines 1-8); selecting a part of the process graphic diagram (col 5, lines 27-32), providing, on said terminal, a graphic image corresponding to the selected part of the process graphic diagram (col 4, lines 6-13), the graphic image being allotted to a process element and showing the location of the process element in the real environment portion, wherein the graphic image is displayed in the operating environment of the process control system when the process is running (Fig. 5). Brinzer does not teach that the graphic image is a virtual image corresponding to a 3-dimensional view of the concrete place. However, such feature is known in the art as taught by Takahara. Takahara teaches a system for monitoring and operating the runs of a plant which comprises the displaying a virtual image corresponding to a 3-dimensional view of the concrete place (col 13, lines 44-59; Fig. 19 and 24). It would have been obvious to one of ordinary skill in the art, having the teaching of Brinzer and Takahara before him at the time the invention was made, to modify the system taught by Brinzer to include the displaying 3-dimensional view of the concrete place taught by Takahara with the motivation being to enable the operator to view the concrete places of the plant in 3-dimensional view.

Regarding claims 2 and 12, Brinzer teaches the graphic image is displayed by activating with an input device of the terminal the representation corresponding to a desired process element and displayed on the display device of the terminal, said

representation comprising at least one of a symbol and text that indicates said process element (see Figures 3-5).

Regarding claims 3 and 13, Brinzer teaches that a separate graphic image is provided for each of a plurality of process element (col 5, lines 22-32; Fig. 5).

Regarding claims 4 and 14, Brinzer teaches at least some of the process elements are illustrated in a same graphic image and a process element whose virtual image can be displayed as a graphic image of its own, is shown in the graphic image in a distinguished manner, said showing comprising one of by circling, by a changed background, by a symbol, and in a corresponding manner (Fig. 3).

Regarding claims 5 and 15, Brinzer teaches the graphic image is a retrieved graphic image (col 5, lines 22-32; Fig. 5) which can be displayed with a display device of the terminal in parallel with corresponding information indicating the status of the process (col 3, lines 62-67), said information being information related to the process element being displayed, in such a way that the information is displayed ready within the retrieved graphic image or the information otherwise linked to said image in such a way that it can be retrieved (col 4, lines 1-5).

Regarding claims 7 and 17, Brinzer teaches the graphic image comprises one or several portions which can be displayed as a separate graphic image of its own (col 3, lines 27-29), wherein said separate graphic image is at least one of a more detailed view and an image provided with additional data (col 4, lines 1-5).

Regarding claim 19, Brinzer teaches the process element is at least one of an actuator, pump, measuring devices and process equipment parts (col 3, lines 9-25),

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinzer, Takahara, and Itoh (EP 0716364).

Regarding claims 6 and 16, Brinzer differs from the claim in that Brinzer does not teach that the terminal is portable and is in a wireless data transmission connection with the process control system. However, such feature is known in the art as taught by Itoh. Itoh teaches an operator support system used in controlling a plant (col 1,lines 3-12). Itoh teaches that the display can be portable (col 16, lines 27-33). It would have been obvious to one of ordinary skill in the art, having the teaching of Brinzer, Takahara, and Itoh before him at the time the invention was made, to modify the system taught by Brinzer to include the portable terminal taught by Itoh with the motivation being to enhance the portability and flexibility of the system.

8. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinzer, Takahara, and Uchida (EP 0626697).

Regarding claims 8 and 18, Brinzer does not teach three-dimensional graphic image and enlarged image. However, such feature is known in the art as taught by Uchida. Uchida teaches a plant monitoring and diagnosing system (page 1) which comprises the enlarging the image of a selected location in the plant (lines 12-15 of

page 15, Fig. 15). It would have been obvious to one of ordinary skill in the art, having the teaching of Brinzer, Takahara, and Uchida before him at the time the invention was made, to modify the system taught by Brinzer to include enlarging 3-dimensional image taught by Uchida with the motivation being to enable the operator to easily clarify portions of the plant as she or she desires.

9. Applicant's arguments filed 04/07/04 have been fully considered but they are not persuasive.

In the "remark" filed 04/07/04, although in the first full paragraph of page 10, Applicant argues "the new independent claims 1 and 9" and in the third full paragraph of page 11, Applicant argues "amended claims 1 and 9", it is assumed that Applicant meant to argue claims 1 and 10, since claim 9 is cancelled, and the subject matter of the original claim 9 is included in the amended claim 10.

In response to Applicant's argument regarding 35 U.S.C. 112, second paragraph rejection, see "Restate 35 U.S.C. 112, second paragraph rejection of the previous Office Action" in section 2 of this Office Action for reason why the rejection has been maintained.

It is note that although original term "concrete places" is replaced by the new term "process elements", the meaning of the new term, in the context of the claims, is the same with that of the original term since it still refers to parts of system being operated.

In response to argument "the provided graphic image is dimensionally changeable is not disclosed in the reference to US 6,031,453", it is noted that Takahara is combined to teach this limitation as presented above.

In response to argument "this is not derivable by a combined consideration....", it is noted that Brinzer invention (USP 6031453) relates to control technical process (abstract) having supply tanks, pumps, hot water to heating coils (col 3, lines 9-25) which suggests parts of a plant and Takahana (USP 5412400) teaches monitoring the run of a plant (abstract) having pump, valves (col 13, lines25-35). Therefore, it is clear that both inventions are in the same field of endeavor and it is derivable and analogous to combine the two references.

In response to argument in Brinzer, the "physical location of the fault is not available" for an operator and "real environment is not even mentioned", it is noted that such is not quite the case since Brinzer teaches the geographic (real) location of the fault (col 5, lines 26-27) is sufficiently localized (col 5, lines 26-27).

In response to argument that Takahana (USP 5412400) does not teach 3D virtual image, it is noted that the image in Device Image Frame in Fig. 19 or Fig. 24 is indeed a 3D virtual image.

In response to argument regarding reference EP 0626697 (Uchida reference), it is noted that this argument attacks references individually. Since Brinzer clearly teaches locating a process element in the real process field, Uchida is cited in combination with Brinzer reference for teaching enlarging image of a selected location in a plant.

In response to argument regarding reference EP 0716364 (Itoh reference), it is noted that this argument attacks references individually. Since Brinzer clearly teaches locating a process element in the real process field, Itoh is cited in combination with Brinzer reference for teaching portable display in controlling a plant.

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kieu D. Vu whose telephone number is (703-605-1232). The examiner can normally be reached on Mon - Thu from 7:00AM to 3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca, can be reached on (703- 308-3116).

The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)-872-9306

and / or:

(703)-746-5639 (use this FAX #, only after approval by Examiner, for "INFORMAL" or "DRAFT" communication. Examiners may request that a formal paper / amendment be faxed directly to them on occasions)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-3900).

Kieu D. Vu

06/25/04

JOHN CABECA
SUPERVISORY PATENT EXAMINER
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